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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

GAKH, YELENA G

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/858,477

Applicant(s)

SEKINE ET AL.

Examiner

Yelena G. Gakh, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-17 and 39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-17 and 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Amendment filed on 09/08/05 is acknowledged. Claims 1-12, 14-17 and 39 are pending in the application.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-12, 14-17 and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 7, 12 and 39 recite, "providing a first data set including a list of substances". It is not clear, how the substances recited in the body of the claims are related to the chemical materials of their preambles. The claims further recite, "wherein at least some of said controlled substances are in the same class of compounds". It is not clear, what "the same class of compounds" is meant here. Is this a conventional class of chemical compounds, e.g. class of acids, aldehydes, alcohols, hydrocarbons, etc.? Is this something else? The term "the same class of compounds" renders the claims unclear and indefinite, as it is not apparent from the specification, how such class of the compounds is defined. Therefore, it is not clear how it can be categorized by a common group control ID. For example, if the controlled compound is benzene, which other compounds would fit the same class? It is further unclear as to what "conversion factors for said controlled substances in a process" might be. Does it mean that the controlled substances are transformed by some process into something else with some conversion factors? Which process is this? Is this just one process, which involves all substances recited in the claims? The expression "wherein said group control ID is the same for chemicals to be controlled that include a predetermined common component" is not clear. If the controlled chemical is benzene, which "predetermined common component" would be for benzene and other chemicals belonging to the "benzene class" with the same group control ID?

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Which other chemicals these might be? Or, if the controlled chemical is H_2S , which other chemicals would fit the same class as H_2S , and what would be their “predetermined common component”? The language of the claims renders them unclear and indefinite, with no specific definitions of what “class of compounds” with a common group control ID might be, and what are principles of forming such classes of compounds. If these are compounds with the same common element (e.g. Zn, as disclosed in the exemplary embodiment in the specification), and all zinc compounds can be grouped in one class with the same ID number independent on their properties and toxicity, then this has to be clearly recited in the claims.

Moreover, it is not clear, if the claims recite just one process involving several materials, and if the materials have similar compositions, i.e. compounds belonging to the same class, or they recite something else.

Claims 3, 9 and 15 are not clear as to what “the source of control” might be, and how it is related to all other data sets of the parent claims; therefore, it is not apparent, what is a control object code.

Claim 6 recites “obtaining said data sets from an outsourcing company”, while the parent claim recites “providing data sets”. If “providing data sets” means “obtaining said data sets from outsourcing company”, does it mean that this should be the outsourcing company that provides these data? If this is the outsourcing company that provides the data, then how can the steps of the parent claim be active steps performed by the routineer in the art?

Claim 14 recites “information about said controlled substances”. “Information” in this context is too broad and indefinite term. Which type of information is meant here? Is it relevant to the toxicity of the compounds? Their structural formulas? The claim is indefinite, since “information” is not a definite term in the context of the claim.

Since no clear and unambiguous definition of the “class of compounds” is provided by the specification, and since such class of compounds can comprise just one compound, if there are no other compounds, which constitute the material and belong to the same class, the examiner interprets the term “the same class of compounds” as the class, which can comprise just one component, with ID assigned to one compound.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-12, 14-17 and 39** are rejected under 35 U.S.C. 102(b) as being anticipated by Sturgeon et al. (US 5,664,112).

Sturgeon teaches a method of integrated Hazardous Materials Management (HMM), providing database for materials containing hazardous compounds and grouping controlled (hazardous) substances by Hazardous Materials Index. “The HMM grouping 21 monitors consumption of chemicals and chemical mixtures, using process definitions and using manual drawdown for non-process consumption. Process definitions cover all chemicals used as input materials for a given process. Process templates provide users with reusable process definitions and with process run parameters such as process run date and frequency of use. Chemical emissions, outfalls and by-product wastes are tracked as they arise by the HPM [Hazardous Permit Management] and HWM [Hazardous Waste Management] groupings 31 and 51. The HMM grouping 21 can generate in-house chemical transfer and usage reports and mass balance reports” (col. 12, lines 21-31). Process templates intrinsically provide ratio of discharge and emission quantity of hazardous compounds. HMM includes handling precautions, hazards and legal regulations with the databases provided by an outsourcing company (Figures 1-2).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. **Claims 1-12, 14-17 and 39** are rejected under 35 U.S.C. 103(a) as being unpatentable over Leal et al. (US 5,311,437, IDS).

Leal teaches a method for management of chemical materials, comprising providing data sets containing controlled (hazardous) substances, "identification of the physical character of the material, identification of a procedure in which the material is operable, and a hazard/environmental assessment. The selector tool further includes selection means executable by the digital processor for controllably selecting, and optionally displaying in a preselected manner that is useful in making a materials selection decision, a material from the data base responsive to a comparison with the physical character of the material, the procedure identification, the end-product specifications, the product/performance risk, or the hazard/environmental assessment. The selection may also be made on other factors such as end product specification and product performance risk" (col. 2, lines 43-59).

While Leal does not specifically indicate grouping compounds and providing them a common control group ID, it would have been obvious for any person of ordinary skill in the art

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to do so, because it helps manage compounds with e.g. the same toxicological properties. While Leal does not specifically indicate a control object code for designating the source of control, it would have been obvious to do so, because this facilitates managing manufacturing facilities.

Response to Arguments

10. Applicant's arguments filed 09/08/05 have been fully considered but they are not persuasive.

While the amendment clarifies some issues raised by the examiner regarding the language of the claims, in general the claims remain unclear and indefinite regarding the subject matter of the invention. It is not apparent, how the claims can be interpreted in light of the specification, when there is no connection between the materials recited in the preamble and the substances recited in the body of the claims. It is not clear, which substances are recited in the claims, what are the substances under control, what are the classes for these substances, and how these classes are defined. The example of the specification discloses zinc compounds, which are constituents of some materials. What about polymers? Which substances should be under control there, and how the common class for these controlled compounds is defined? The specification does not provide any general principle for forming classes of compounds, which may compose a material and belong to completely different classes. Also, the claims are not clear as to which processes are recited in the claims are these certain chemical reactions? Any possible transformations of materials?

With indefiniteness and non-clarity of the claims the examiner interprets claims as reciting the class of compounds, which can comprise just one compound. For such class of the compounds the prior art applied in the previous Office actions meets all the limitations recited in the claims. Each compound, which constitutes the class, has its ID group number. This means that Sturgeon can be applied to the pending claims as the anticipatory reference, and Leal as the obvious-type reference.

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Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yelena G. Gakh, Ph.D. whose telephone number is (571) 272-1257. The examiner can normally be reached on 9:30 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10/20/05


YELENA GAKH
PRIMARY EXAMINER